

CLAIMS:

1. A method for molding a replica, comprising the steps of forming a mother mold from a transparent cured product of a photo-curable liquid silicone rubber composition, the mother mold having a cavity corresponding to the outer contour of an article to be duplicated,
5 filling the mold cavity with a photo-curable liquid resin, and
10 irradiating light to the photo-curable liquid resin from outside the mother mold, thereby curing the photo-curable liquid resin within the mother mold to produce a replica.
- 15 2. A method for molding a replica, comprising the steps of (a) filling a container having at least one light-transmissive side surface with a photo-curable liquid silicone rubber composition, submerging a master model in the liquid silicone rubber composition, and irradiating
20 light to the liquid silicone rubber composition to cure the composition to form a transparent silicone rubber part having the master model embedded therein,
(b) cutting the silicone rubber part into sections and removing the master model therefrom, the sections when mated
25 constituting a silicone rubber mother mold having a cavity corresponding to the outer contour of the master model,
(c) mating the sections of the silicone rubber mother mold, filling the cavity with a photo-curable liquid resin, and irradiating light to the photo-curable liquid resin from
30 outside the mother mold, thereby curing the photo-curable liquid resin within the mother mold to produce a replica,
(d) removing the replica from the silicone rubber mother mold.
- 35 3. The method of claim 2 wherein the master model is produced by an optical shaping process of irradiating light to a photo-curable liquid resin composition on the basis of CAD data regarding the shape and dimensions of the master

model designed by three-dimensional CAD technique, thereby curing the resin composition.

4. The method of claim 1 wherein the irradiated light has
5 a wavelength in the range of 200 to 500 nm.

5. The method of claim 2 wherein the irradiated light has a wavelength in the range of 200 to 500 nm.

10 6. An apparatus for molding a replica comprising
a mother mold having a cavity corresponding to the
outer contour of an article to be duplicated, said mother
mold being formed from a transparent cured product of a
photo-curable composition,
15 a means for casting or filling the mold cavity with a
photo-curable liquid resin, and
a means for irradiating light to the photo-curable
liquid resin from outside the mother mold thereby curing the
photo-curable resin.

20 7. The apparatus of claim 6 wherein said mother mold is formed from a transparent cured product of a photo-curable liquid silicone rubber composition.

25 8. The apparatus of claim 6 wherein said casting means includes a means for agitating and defoaming said photo-curable liquid resin under a reduced pressure.

30 9. The apparatus of claim 6 wherein said light irradiating means irradiates light having a wavelength in the range of 200 to 500 nm.